



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/660,399	09/10/2003	Gilbert Gugler	ICH 299-US	5850

7590 08/18/2005
Dara L. Onofrio, Esq.,
c/o ONOFRIO LAW
Suite 1600
1133 Broadway
New York, NY 10010

EXAMINER

BAREFORD, KATHERINE A

ART UNIT	PAPER NUMBER
----------	--------------

1762

DATE MAILED: 08/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/660,399

Applicant(s)

GUGLER ET AL

Examiner

Katherine A. Bareford

Art Unit

1762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9, 11-14 and 16-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Claims 8, 10 and 15 are canceled

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 April 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The amendment to the specification (filed in response to the Notice of Non-compliance of June 16, 2005) of July 5, 2005 has been received and entered. The amendment to the claims of May 10, 2005 (filed in response to the Notice of Non-compliance of April 29, 2005) has been received and entered. The amendment to the drawings and arguments filed April 14, 2005 have been received, entered and considered.

As a result, claims 1-7, 9, 11-14 and 16-18 are present for consideration. Claims 8, 10 and 15 have been canceled.

Drawings

1. The replacement drawings of Figure 3 were received on April 14, 2005. These drawings are objected to.

(1) Figure 3 has been provided with an expanded view of the "channels", whereby dimensions are indicated as to width of "10 + 1000y" and as to depth of "1 + 500y". However, there is no support in the disclosure as originally filed for these dimensions. Therefore, Figure 3 now contains new matter.

(2) Figure 3 only has been provided on the supplied sheet. However, as indicated in the paragraph below, when providing a replacement sheet, "A replacement sheet must include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended." In this case, the previously filed drawing sheet containing Figure 3 also had Figure 2 on it.

2. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because Figure 3 as presently provided (see paragraph above) contains new matter. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

INFORMATION ON HOW TO EFFECT DRAWING CHANGES

Replacement Drawing Sheets

Drawing changes must be made by presenting replacement sheets which incorporate the desired changes and which comply with 37 CFR 1.84. An explanation of the changes made must be presented either in the drawing amendments section, or remarks, section of the amendment paper. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). A replacement sheet must include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of the amended drawing(s) must not be labeled as "amended." If the changes to the drawing figure(s) are not accepted by the examiner, applicant will be notified of any required corrective action in the next Office action. No further drawing submission will be required, unless applicant is notified.

Identifying indicia, if provided, should include the title of the invention, inventor's name, and application number, or docket number (if any) if an application number has not been assigned to the application. If this information is provided, it must be placed on the front of each sheet and within the top margin.

Annotated Drawing Sheets

A marked-up copy of any amended drawing figure, including annotations indicating the changes made, may be submitted or required by the examiner. The annotated drawing sheet(s) must be clearly labeled as "Annotated Sheet" and must be presented in the amendment or remarks section that explains the change(s) to the drawings.

Timing of Corrections

Applicant is required to submit acceptable corrected drawings within the time period set in the Office action. See 37 CFR 1.85(a). Failure to take corrective action within the set period will result in ABANDONMENT of the application.

If corrected drawings are required in a Notice of Allowability (PTOL-37), the new drawings MUST be filed within the THREE MONTH shortened statutory period set for reply in the "Notice of Allowability." Extensions of time may NOT be obtained under the provisions of 37 CFR 1.136 for filing the corrected drawings after the mailing of a Notice of Allowability.

Specification

3. The objection to the disclosure because at page 4, line 16, "und" should apparently be "and" is withdrawn due to applicant's amendment to the specification to correct that.
4. The objection to the specification as failing to provide proper antecedent basis for the claimed subject matter is withdrawn due to applicant's amendment to the specification to provide proper basis for claims 6 and 7.
5. The Examiner notes the clarification as to the use of the trademark TEFLON in the application.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-7, 9, 11-14 and 16-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, lines 3-4, "the curtain" and "the lateral guides" lacks antecedent basis. In the amendment, applicant indicates that the claim has been corrected to provide antecedent basis for these terms, however, no changes have been made to the claim as to this issue, and therefore the rejection is maintained.

Claim 1, line 7, "the horizontal line" lacks antecedent basis. In the amendment, applicant argues that they do not believe the term lacks antecedent basis, given the teaching at page 4, lines 27-29 of the specification. The Examiner has reviewed this argument, however, the rejection remains. There is no antecedent basis within the claim. Furthermore, the existence of a horizontal line does not indicate how the angle is measured without indicating where the horizontal line. For example, if the line was below the edge, the angle between the edge and the line would be different than if the line was above the edge.

Claim 5, lines 3-5, "the curtain" and "the lateral flow liquid" now lack antecedent basis.

Claim 5, line 10 "the horizontal line" lacks antecedent basis. In the amendment, applicant argues that they do not believe the term lacks antecedent basis, given the teaching at page 4, lines 27-29 of the specification. The Examiner has reviewed this argument, however, the rejection remains. There is no antecedent basis within the claim. Furthermore, the existence of a horizontal line does not indicate how the angle is measured without indicating where the horizontal line. For example, if the line was below the edge, the angle between the edge and the line would be different than if the line was above the edge.

The other dependent claims do not cure the defects of the claims from which they depend.

Claim Rejections - 35 USC § 101

8. The rejection of claims 5-18 under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter is withdrawn due to the amendment to claim 5 to make it independent.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claims 1-6 and 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 03/049870 A1 (hereinafter '870) in view of EP 1 023 949 A1 (hereinafter '949).

The Examiner notes that the effective filing date of '870 for the purposes of this examination is Dec. 13, 2001, as '870 is an international application filed under the treating defined in section 351(a) as it is filed after Nov. 29, 2000; designates the US; and was published in English (international filing date Dec. 12, 2002). Furthermore, priority extends back to the priority date of Dec. 13, 2001, as the material used is in the provisional US application.

'870 teaches a method of curtain coating a moving web with at least one coating solution. Figure 1 and page 14. Lateral, or edge, guides are provided on the edges of the curtain. Figures 2-6 and pages 14-15. A lateral auxiliary flow of liquid is supplied in

a groove in the edge guides. Figures 2-6 and pages 20-21 (the "contact area 30" bound by protrusions 36 corresponds to the claimed "groove"). The groove is perpendicular to the lateral extension of the curtain. Figures 1-6. The edge guides have lower ends. Figures 2-3 and page 20. The edge guide system stabilizes the curtain on both sides. Page 20. The lower end has a downward protruding edge as claimed, since by original claim 8 (and page 4 of the specification), α can be 90 degrees and by original claim 10 (and page 4 of the specification), β can be 90 degrees, providing that a lower end of rectangular shape can be used. Figures 2-3 and page 20.

Claim 5: exit slits are provided above the edge guides to supply the lateral flow of liquid perpendicular to the lateral extension of the groove. Page 19-20. The edge guides have a lower end. Figures 2-3 and page 20. The lower end has a downward protruding edge as claimed, since by original claim 8, α can be 90 degrees and by original claim 10, β can be 90 degrees, providing that a lower end of rectangular shape can be used. Figures 2-3 and page 20.

Claim 6: the width of the groove can be 10 mm. Page 20.

Claim 15: the groove has channels arranged in the direction of the falling curtain. Figures 2-6 and page 20 (the "grooves" provide "channels" as claimed).

Claim 16: the channels can have a rectangular profile. Figure 5 and page 16 (as the surfaces forming the grooves can be inclined to each other at an angle of 90 degrees).

'870 teaches all the features except (1) coating all liquid on the moving web without separating before application (claims 1, 2, 5), (2) the height of the guides (claims 3, 4), (3) the depth of channels as claimed (claims 17-18).

'949 indicates that when performing a curtain coating of a moving web with at least one coating solution, it is desirable to use edge guides. Abstract and figure 4. When using the edge guides, all materials (coating and edge liquids) can be applied onto the web without separating before contact. Figure 4 and abstract. Then the auxiliary liquid can be removed, after application onto the web. Figure 4 and Paragraph [0032].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify '870 to use the edge guide system to apply all liquid on the moving web without separating before application as suggested by '949 in order to provide a desirable coating, because '870 teaches using an edge guide system with grooves to apply liquid to a moving web by curtain coating, and '949 teaches that when using a edge guide system to apply liquid to a moving web by curtain coating, a desirable coating can be applied by applying coating and edge liquids all to the web and then remove edge liquids after application. It would further have been obvious to perform routine experimentation to optimize the distance between the web and the end edge guides so as to minimize the distance so as to keep the curtain uniformity provided by the edge guides, but not damage the web or applied coating. It would further have been obvious to perform routine experimentation to optimize the distance

between channels and the depth of the channels, given an optimal channel distance and angle.

12. Claims 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over '870 in view of '949 as applied to claims 1-6 and 16-18 above, and further in view of Oki et al (US 6454858).

'870 in view of '949 teaches all the features of these claims except the undersurface material of PTFE (polytetrafluoroethylene or TEFLON).

However, Oki teaches that it is known to make edge guides for curtain coating from PTFE. Figure 1, column 2, lines 30-55, and column 13, lines 45-50. Oki also teaches that it is known to make edge guides of such materials as polyvinyl chloride or steel, and to make connecting width regulating plates from PTFE. Column 14, lines 40-45.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify '870 in view of '949 to use the edge guide system of with at least a backing PTFE/TEFLON in order to provide a desirable coating, because '870 in view of '949 teaches using an edge guide system with grooves to apply liquid to a moving web by curtain coating, and Oki teaches that when using a edge guide system to apply liquid to a moving web by curtain coating, it is desirable to provide the area next to the edge guide contacting the liquid (the width regulating plate) from PTFE when then edge guide is a material such as PVC. As a result, it would have been

obvious to make the backing of the edge guide of PTFE so that only the face of the edge guide is the non-PTFE material.

Allowable Subject Matter

13. Claims 7, 9 and 11 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

The cited prior art does not teach or suggest the width of the groove of claim 7, or the angles of claims 9 and 11.

Response to Arguments

14. Applicant's arguments filed April 14, 2005 have been fully considered but they are not persuasive.

As to the rejection of claims 1-6 and 16-18, applicant argues that (1) as to claims 3-4, the distance measured is relative to the protruding edge of the lower end of the lateral guides and the moving web. (2) applicant argues that '949, indicates that it is preferred that a separation device be used so that the edges are not deposited on the web. Furthermore, according to applicant, it is well settled that the mere fact that the prior art can be modified to form the invention would not make the modification obvious unless the prior art suggested the desirability of the modification, and '949 teaches against applying all materials onto the web without separating. (3) Applicant

further argues that '949 teaches to use a higher viscosity liquid as the edge liquid, specific materials as the edge liquid, and that the edge liquids are not supplied in a groove but within the extension of the curtain. According to applicant, in the present invention the edge fluid is mainly water that is supplied perpendicular to the extension of the curtain, and that this aspect of the invention is not taught by '870 or '949.

The Examiner has reviewed these arguments, however, the rejection is maintained. (1) As to claims 3-4, the Examiner has indicated that '870 provides using a lower end of rectangular shape (given the values for α and β taught), which would be the end of the edge guide. Thus, measurements to the "end" of the edge guide would also be to the "protruding edge". (2) As to the teaching of '949, while using a separation device is preferable, at paragraph [0032] and figure 4, '949 specifically provides that it is also possible to apply the coating and edge liquids to the surface and suction up the undesired side materials after the application (see the suction device 20 of figure 4). Thus, '949 teaches that applying the coating and edge liquids to the surface and later removing undesired edge materials provides an acceptable coating. As discussed in MPEP 2123, "Disclosed examples and preferred embodiments do not constitute a teaching away from a broader disclosure or nonpreferred embodiments. In re Susi, 440 F.2d 442, 169 USPQ 423 (CCPA 1971)." One of ordinary skill in the art from reading '949 would certainly understand that the application method as shown in figure 4 would provide an acceptable coating method, and thus one would be suggested to use that application method when curtain coating as shown in '870 in order to provide a

desirable resulting coated surface. (3) As to the groove features, these are provided by the primary reference, '870. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the viscosity and materials of the edge liquid) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

As to the rejection of claims 12-14, applicant argues that the use of Oki is incorrect, as Oki indicates that undesirable coating quality is obtained when the edge guides, including the undersides, are made from polytetrafluoroethylene (PTFE). Also, in Oki, according to applicant, when the width regulating plate and the edge guides are made from the same material, coating quality is not good. Also, according to applicant, one skilled in the art knows that width regulating plates are often made from stainless steel, and the use of PTFE edge guides is discouraged by Oki.

The Examiner has reviewed these arguments, however, the rejection is maintained. As discussed in the rejection of claims 12-15 above, it is not the Examiner's position that the entire edge guide should be made from PTFE, merely that the underside should. As discussed above, Oki teaches that when using a edge guide system to apply liquid to a moving web by curtain coating, it is desirable to provide **the area next to the edge guide contacting the liquid** (the width regulating plate) from PTFE when the edge guide is a material such as PVC. As a result, it would have been

obvious to make the backing of the edge guide of PTFE so that only the face of the edge guide is the non-PTFE material. Applicant has provided arguments that Oki would not suggest making the edge guide PTFE, but the Examiner has only suggested making the non-curtain facing parts PTFE.

Conclusion

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katherine A. Bareford whose telephone number is (571)

272-1413. The examiner can normally be reached on M-F(6:00-3:30) with the First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on (571) 272-1423. The fax phone numbers for the organization where this application or proceeding is assigned are (571) 273-8300 for regular communications and for After Final communications.

Other inquiries can be directed to the Tech Center 1700 telephone number at (571) 272-1700.

Furthermore, information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


KATHERINE BAREFORD
PRIMARY EXAMINER